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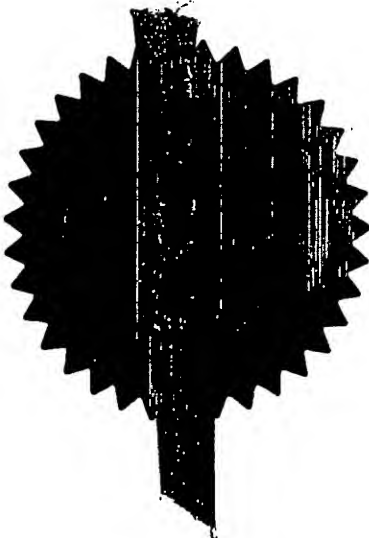
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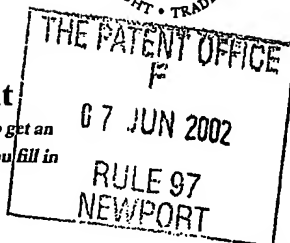
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JPH/JM/JGM/P01UK

2. Patent application number

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2002 N01 LD

0213539.0

3. Full name, address and postcode of the or of each applicant (underline all surnames) s/l

Joseph
Joseph Gabriel Maginness
28 Shaneen Park,
Belfast
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Patents ADP number (if you know it)

084 004 18001

If the applicant is a corporate body, give the country/state of its incorporation

4. Title of the invention

Container for Collecting and Disposing
of Animal Excreta

5. Name of your agent (if you have one)

ANSONS

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United Kingdom

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Description 8

Claim(s)

Abstract

Drawing(s) 4 + 4 *SW*

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Statement of inventorship and right to grant of a patent (*Patents Form 7/77*)

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John P Hanna

Date 06.06.2002

12. Name and daytime telephone number of person to contact in the United Kingdom

John P Hanna - 02890 656103

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CONTAINER FOR COLLECTING AND DISPOSING OF ANIMAL EXCRETA

5 This invention relates to an apparatus for collecting and disposing of animal excreta and in particular to a hand held apparatus for collecting dog's excreta.

 In a variety of cities and towns throughout the world, it is a public offence for a dog owner to allow a dog to foul the pavements or public parks whilst taking their dog for a walk without removing the excreta thereafter. The apprehended person walking the animal is often
10 subject to a fixed penalty fine. Furthermore, this is an unhygienic practice particularly in parks or areas where children are prone to be playing. The impact of both the deterrent of a fine and increased public awareness in relation to hygiene has produced a need for an apparatus to remove excreta from pavements, grass and other surfaces upon which a dog excretes during exercise or during any other time spent outdoors.

15 A variety of apparatuses have been developed to assist pet owners with the task of removing excreta from a surface shortly after it has been deposited by a pet.

 WO 89/08744 discloses a refuse collector having a receiver for the refuse and a vacuum cleaner unit for collecting the refuse and transmitting it to the receiver. A source of refrigerant gas is provided to be directed onto the refuse to partly freeze it before it is
20 collected and transmitted to the receiver.

 DE 3238062 discloses a container in which a cooling medium is accommodated to harden the surface of domestic animal faeces making it easier to lift and carry. The container is designed for both lifting and storing the faeces of the domestic animal.

DE 29816807 discloses a device having a portable container with a cold spray enabling the dog excrement to be cooled before collection and disposal. The device enables the excrement to acquire a firm consistency prior to collection and disposal.

The present invention provides an alternative construction of apparatus for collecting
5 and disposing of excreta deposited by a pet/domestic animal.

Accordingly, there is provided a hand-held portable container for collecting and disposing of animal excreta comprising a shell having an opening for receiving excreta, the shell having an impaling means including a plurality of tines disposed within the shell for impaling excreta. The plurality of tines cause minimal dispersion of the excreta when an
10 operator presses the tines down into it. The tines increase the surface area of the container which comes into contact with the excreta increasing the likelihood of a successful removal of all of the excreta from the surface it has been deposited on.

In a first embodiment, the impaling means is integrally formed with the shell.

In a second embodiment, the impaling means is removably mounted on the shell.

15 In the second embodiment, the impaling means comprises a base located outside the shell and a plurality of tines outstanding therefrom, extending through and disposed within the shell, the shell having a plurality of apertures aligned with the tines for slidable engagement therewith.

In another embodiment, sharp tines penetrate the shell without the need of apertures.

20 The shell facilitates their cleaning upon withdrawal.

Ideally, the shell comprises a base and a wall outstanding from the periphery of the base.

In a third embodiment, the container has a means for releasably fastening an aerosol cartridge thereon.

25 In the third embodiment, the fastening means is located on the shell:

In the third embodiment, the fastening means is located on the base of the impaling means on the opposite side of the base to the side which carries the tines.

In the third embodiment, a fluid delivery means is mounted on the container for communicating fluid from an aerosol cartridge when it is mounted on the container to the area
5 around the tines.

Preferably, an aerosol cartridge is fastened on the container.

Ideally, the aerosol includes a freezing component for freezing at least the outer skin of the excreta. This improves the bond between the tines and the excreta increasing the likelihood of a successful removal of the excreta, at the first attempt.

10 In any embodiment, a lid is provided for engagement with the shell for covering the tines and any excreta impaled thereon prior to disposal. This improves the hygienic aspect of the container.

In any embodiment, the shell, lid and tines are formed from plastic.

In any embodiment, the shell and lid are formed from cardboard and the tines are
15 formed from wood.

In the second embodiment, the base of the impaling means is formed from cardboard and the tines are formed from wood.

In the second embodiment, the base of the impaling means and the tines are formed from plastic.

20 In the third embodiment, the means for fastening the aerosol is provided by a housing comprising a hollow elongate closed profile element for receiving an aerosol cartridge.

In the third embodiment, the housing is integrally formed with the shell.

In the third embodiment, the housing is integrally formed with the base of the impaling means on the side of the base opposite the side which carries the tines.

25 In the third embodiment, the housing is tubular.

In a fourth embodiment, the fastening means is provided by a substantially c-shaped resilient clip mounted on the container formed for receiving the aerosol cartridge.

In the fourth embodiment, the c-shaped resilient clip is integrally formed with the shell.

In the fourth embodiment, the c-shaped resilient clip is integrally formed with the base
5 of the impaling means on the side of the base opposite the side which carries the tines.

In the third or fourth embodiment, the fluid delivering means comprises a dispensing head releasably mounted on the container for engagement with a nozzle of the aerosol cartridge and a pipe extending between the dispensing head and the area around the tines.

In the third or fourth embodiment, the shell defines an aperture for receiving a free
10 end of the pipe.

In the third or fourth embodiment, the dispensing head has an annular shoulder formed for engagement with an annular flange on the nozzle to open the aerosol cartridge when an operator presses on the dispensing head allowing aerosol to flow out of the cartridge through the pipe to the area around the tines.

15 It will of course be appreciated that an elongate handle in the form of a walking stick can extend from the container and a means for activating the dispensing head thereby opening the aerosol cartridge could be mounted on a hand held portion of the handle.

Ideally, the free end of the pipe is located centrally of and extends through the aperture in the shell for communicating the aerosol to the area around the tines.

20 Preferably, the free end of the pipe is located centrally of and extends through the base of the impaling means and the aperture in the shell.

In a fifth embodiment, the container is releasably mounted on a support member having two main faces, one face carrying the fastening means and the other face having a surrounding wall outstanding from the periphery thereof defining a cavity for receiving the
25 container.

In the fifth embodiment, the container and the cavity are dimensioned to form an interference fit therebetween. This allows the container to be easily inserted into and removed from the support member before and after use respectively.

In a sixth embodiment, a screw is provided in a threaded bore extending through the wall outstanding from the face of the support member for engaging the container housed in the cavity.

In any embodiment of the invention, the wooden or plastic tines are replaced by metal tines having an integrally formed temperature reducing means. The reduced temperature of the metal tines results in freezing of the excrete in the area around the tines and providing a strong bond between the excreta and the tines.

Preferably, a battery-powered light bulb or semi-conductor lamp and a switch are mounted on the container. Alternatively, the light bulb and switch are mounted on the support member or housing. This allows an operator to use the apparatus in poor light.

Ideally, transparent glass covers the light bulb to the front of the container and a red glass is provided for transmitting the light at the rear of the container.

The present invention will now be described with reference to the accompanying drawings, which show, by way of example only, one embodiment of an apparatus for collecting and disposing of animal excreta in accordance with the invention.

In the drawings:-

Fig. 1 is an elevation view of the container and support member;

Fig. 2 is a side view of Fig. 1;

Fig. 3 is a plan view of Fig. 1 and Fig. 2;

Fig. 4 is an elevation view of the support member with an aerosol cartridge mounted;

Fig. 5 is side view of Fig. 4;

Fig. 6 is a plan view of Fig. 4 and Fig. 5;

Fig. 7 is an elevation view of the container;

Fig. 8 is a side view of Fig. 7;

Fig. 9 is a plan view of Fig. 7 and Fig. 8;

Fig. 10 is an elevation view of a lid for the container of Figs 7 to 9;

5 Fig. 11 is a side view of the lid of Fig. 10;

Fig. 12 is a plan view of the lid of Fig. 10 and Fig. 11;

Fig. 13 is an elevation view of a lid for the support member of Figs 4 to 6;

Fig. 14 is a side view of the lid of Fig. 13;

Fig. 15 is a plan view of the lid of Fig. 13 and Fig. 14; and

10 Fig. 16 is an exploded view of the container and support member.

Referring to the drawings and primarily to Figs. 1 to 6 and Fig. 16, there is shown an apparatus for collecting and disposing of excreta indicated generally by the reference numeral 1. The apparatus 1 has a support member 2 including housing 3 for housing an aerosol cartridge 4 therein. A container 5 is releasably mounted on the support member 2
15 having a base 7 and a plurality of tines 8 outstanding from the base 7 and the support member 2.

The support member 2 also carries a fluid delivery apparatus 11 for delivering fluid from the aerosol cartridge 4 to the area around the tines 8. The housing 3 is formed as an open-ended tube 12 manufactured from plastic and integrally formed with the support
20 member 2. The support member 2 is a substantially oblong elongate element 14 having the tube 12 extending along one side 15 thereof. The opposite side 16 of the element 14 carries a surrounding wall 17 outstanding therefrom and defining a cavity 21. The cavity 21 is dimensioned for receiving the container 5 and to hold it in position by an interference fit therebetween.

The container 5 has a shell defined by a surrounding wall 22 outstanding from the base 7 in the same direction as the tines 8. The base 7 and surrounding wall 22 are formed from cardboard and the tines 8 are formed from wood and are presented as wooden stakes. A lid 25 (see Figs. 13 to 15) formed for engagement with the outstanding wall 22 of the container 5 is provided to enclose the tines and any matter impaled thereon. The lid 25 has a base 41 and a surrounding wall 42 outstanding from the base 41. A second lid 27 (see Figs. 10 to 12) formed for engagement with the surrounding wall 17 of the support member 2 is also provided with a base 43 and a surrounding wall 44 outstanding from the base 43 and the lid 25 is enclosed by the lid 27 when both lids are mounted on their respective surrounding walls.

The fluid delivery apparatus 11 (see Fig. 16) has a dispensing head 31 for engagement with the nozzle 32 of the aerosol cartridge and a pipe 33 for transferring the aerosol to the area surrounding the tines 8. The dispensing head 31 has an annular shoulder 34 formed for engagement with an annular flange 35 surrounding the base of the nozzle 32. The free end 37 of the pipe 33 is located centrally of and extends through the base 7 of the container 5.

Referring to Figs. 7 to 9, the tines 8 are shown in rows and columns outstanding from the base 7 of the container 5 forming an array of wooden stakes to penetrate excreta . In this embodiment, the tines 8 extend perpendicularly from the base 7.

In use, a person who is walking a pet which has fouled the walking area takes hold of the apparatus 1 by the housing 3. With the other hand, an operator removes both lids, outer support member lid 27 and then inner lid 25 exposing the outstanding tines 8. The lids 25, 27 are placed on the ground on their bases 41 and 43 respectively so that the lids can be rejoined to their corresponding parts without lifting them again. The operator now moves the apparatus 1 towards the excreta, tines 8 first. The tines 8 are pressed down into the excreta

until the outstanding wall 22 contacts the surface upon which the excreta is supported. The aerosol cartridge 4 is now opened for a few seconds by applying force to the nozzle 32 allowing the aerosol to flow through the pipe 33 and into the area enclosed by the base 7, wall 22 and the surface upon which the excreta is supported.

5 The freezing component of the aerosol freezes at least the skin of the excreta which bonds to the tines 8 and the core of the excreta. The lifting operation can now be repeated in order to lift additional mounds of excreta. After the first mound has been successfully frozen and lifted, the apparatus can be placed over an additional mound. The inner core of the original mound merges and bonds with the second mound. Parts of the second mound are
10 pierced by the tines and the new combined mound is frozen again. The operator lifts the apparatus 1 away from the support surface and the excreta is removed from the surface. The operator now moves the apparatus 1 into alignment with the lid 25 and lowers the apparatus 1 tines 8 first onto the lid 25 sealing the excreta within the container 5. The container 5 may now be detached from the cavity 21 defined by the support member 2 of the
15 apparatus 1 and disposed of in a bin. Alternatively, if no such waste disposal facility is available, the operator can place the main lid 27 onto the support member 2 of apparatus 1 until a suitable bin becomes available.

Variations and modifications can be made without departing from the scope of the invention described above.

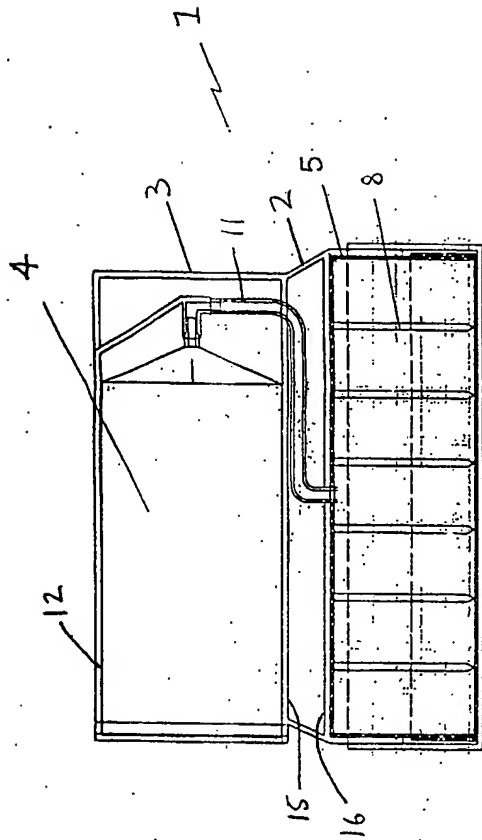


Figure 1

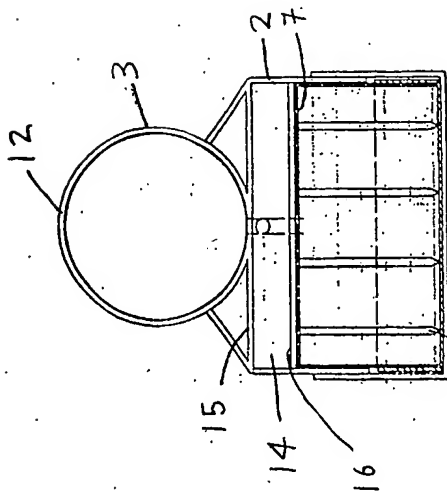


Figure 2

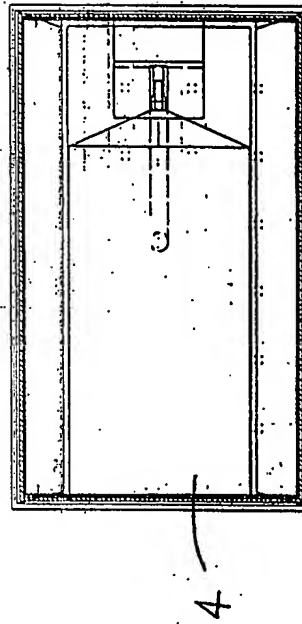


Figure 3

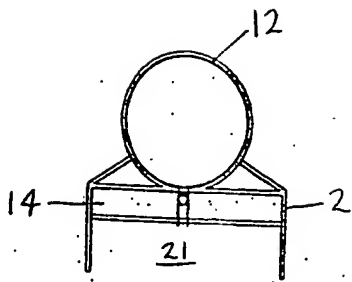


Figure 5

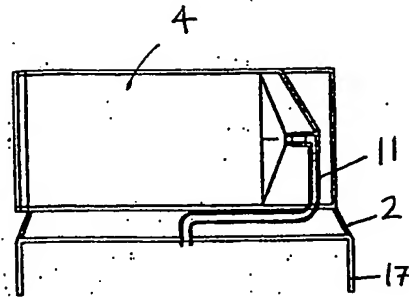


Figure 4

1

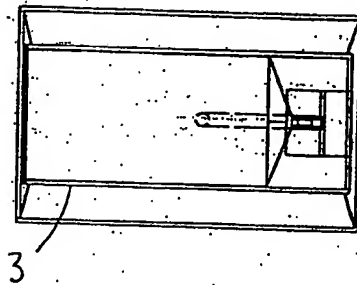


Figure 6

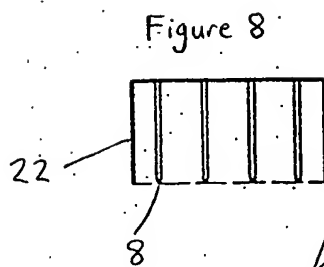


Figure 8

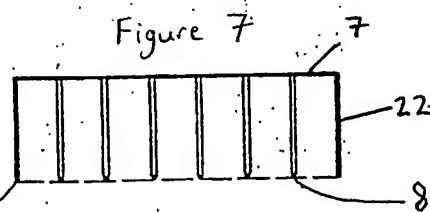


Figure 7

5

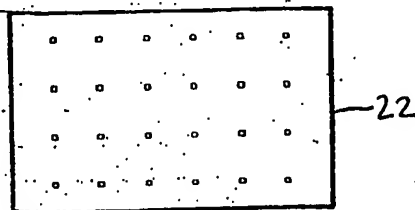


Figure 9

Figure 11 44 Figure 10

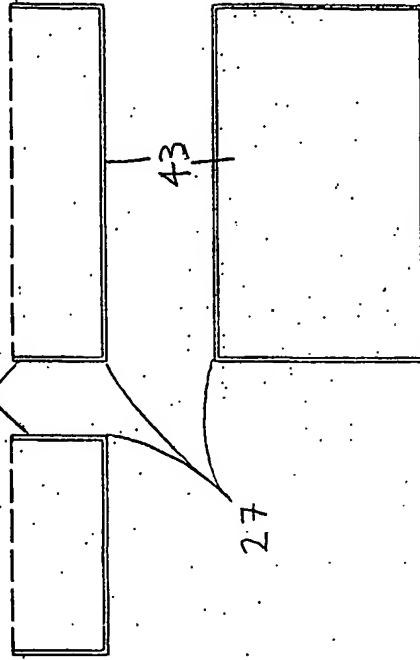


Figure 12

Figure 14 42 Figure 13

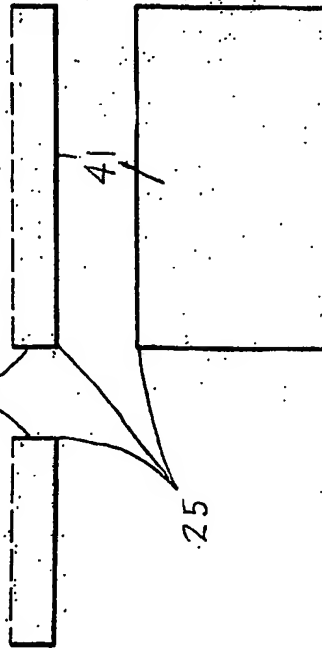


Figure 15

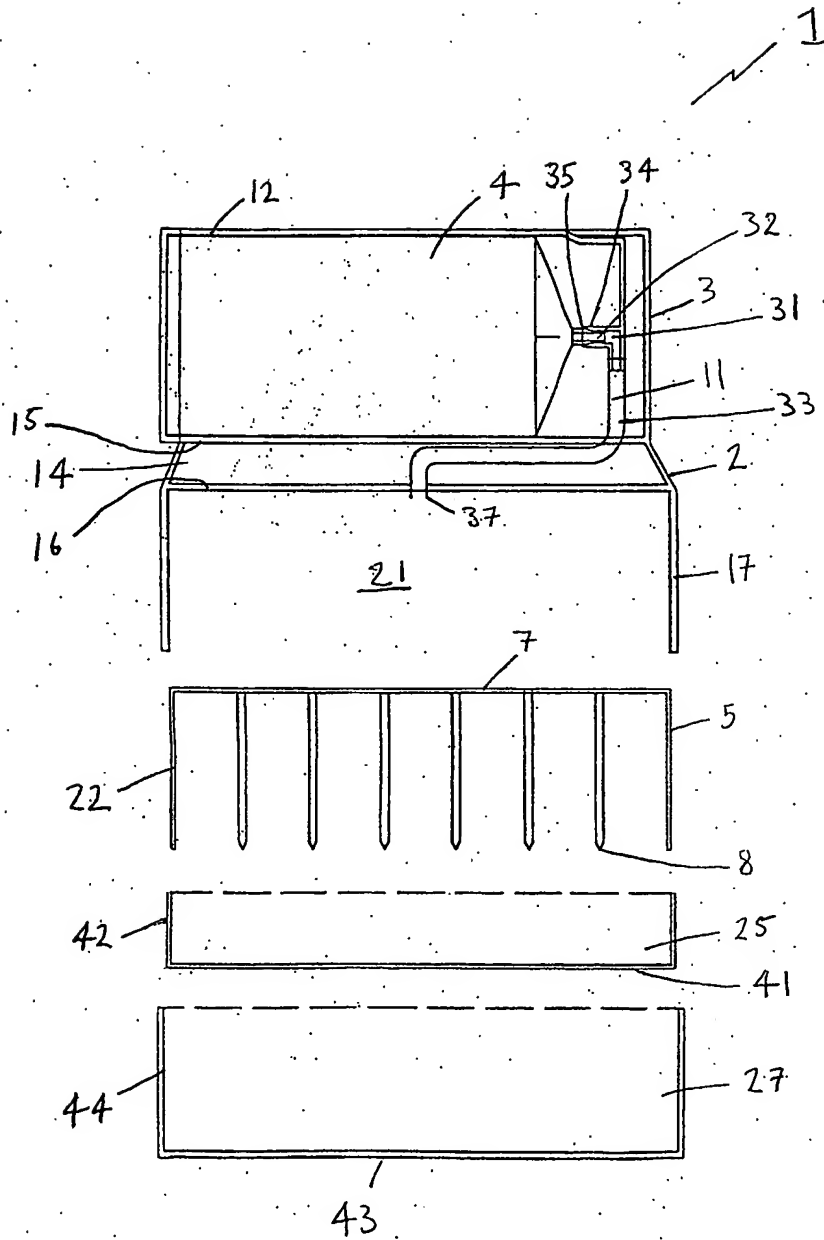
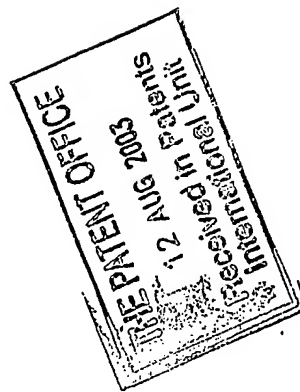


Figure 16

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